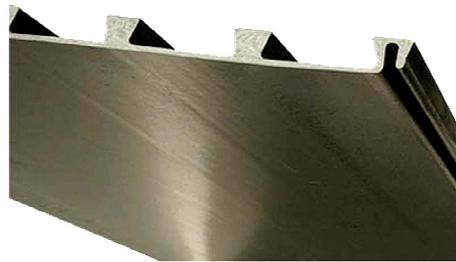


Technical Data Sheet

Installation of Decks and Interior Flooring Utilizing TI-ProBoard™

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TI-ProBoard is an underlayment that can be used as a single underlayment for tiling decks .

Some Recommended uses:

- Decks
- Balconies
- Exterior Floors
- Base for counter tops
- Outdoor Kitchens
- Three Seasons rooms
- Indoor Kitchen floors
- Bathrooms
- Mud room Floors

Part 1. General

1.01 Description

TI- ProBoard is a structural product, single underlayment for setting tile. A pultruded fiberglass and composite product with tongue and groove along each edge. Board size is 8' and 12' long x 1' wide with 3/8" dove-tail ribs.

1.02 Work Included

A. This specification covers in full the installation of TI-ProBoard with joists up to 24" o/c.

1.03 Quality Assurance

A. FinPan guarantees the TI-ProBoard will perform as described in this manual.

B. Compatibility

01. TI-ProBoard is not to be used in conjunction with any other wood material, such as plywood or decking boards, as an underlayment. Remove any wood down to the joists.

02. FinPan is not responsible for any design load calculations. Please contact your design professional to see if your existing deck can handle the loads. TI-ProBoard weighs 1.3 lbs/sq.ft. Fully installed approx. 11-12 lbs/sq.ft.



1.04 Storage and handling

A. TI-ProBoard needs to be shielded from sunlight when stored outdoors for long periods (excess of 2 months). Cover with tarp to prevent damage from UV.

B. TI-ProBoard should be handled with care so as to not damage the tongues and grooves that hold the planks together.

C. Care should be taken during the cutting of TI-ProBoard due to the dust or small amounts of glass fibers that can become airborne. A wet saw is highly recommended.

1.05 Design Considerations

The structural capabilities of TI-ProBoard are well within the requirements for a normal deck. Structural considerations for the deck framing used under hot tubs are subject to design by other local codes and structural engineers for the deck frames. The design of the joists should be angled to allow a slope of 1/4" per running foot away from the structure.

1.06 Testing

A. In 2005 Robinson Floor Test ASTM C627 Using 12" x 12" porcelain tile rated 'Extra Heavy' TCNA

B. In 2007 Robinson Floor test ASTM C627 using 12" x 12" porcelain tiles rated "Extra Heavy" TCNA

C. In 2009 Robinson Floor test ASTM C627 using 12" x 12" tiles rated "Heavy" by Laticrete INC

D. In 2012 Robinson 14'. Suspended floor test ASTM C627 rated "Commercial" TTMAC

E. In 2008 UL E84 – 07: Surface burning Characteristics of TI-ProBoard:

01. Calculated Flame Spread
0

02. Flame Spread Index
0

03. Calculated Smoke Developed
0

04. Smoke Developed Index
0

F. ASTM C1026: Freeze/thaw 20 samples passed without any deformation

G. ASTM C67-08: 300 Cycle freeze/thaw passed without any changes or deformation.

H. ASTM 790: Flexural test ultimate load with mortar 2,600lbs/sq. ft.

1.07 Maintenance

A. Maintenance to an installed board is neither necessary nor practical.

1.08 Warranty

A. TI-ProBoard has a 10-year warranty against defects.

Part 2. Products

2.01 Materials

A. TI-ProBoard

01. TI-ProBoard is manufactured by pultrusion. Made of fiber-reinforced, composite polymers with an integral fiberglass backing. The panels are 8' and 12' x 1' x 3/8".

B. Fasteners

1. Use 1-1/2" length with 1/2" Pancake Head screws that are coated to prevent corrosion.

C. Mortar

01. ANSI A108.1B

D. Membrane

01. ANSI A108.13.2.1

E. Thin set

01. ANSI 118.4 or better.

F. Tile

01. ANSI A108.5 Porcelain Tile or tile suitable for the climate zone.

02. For exterior decks the coefficient of friction for the finished surface should be rated at 0.6 or above. (new TCNA 0.43)

F. Grout

01. ANSI A108.6 or better.

Part 3. Execution

3.01 Preparation

A. Make sure that the deck frame is in good condition, sloped away from the structure and with joists up to 24" o/c.

3.02 Installation requirements on decks and balconies not over living area.

A. The maximum variation in the joist system is 1/4" in 10' & 1/16" in 1'. from required plane.

B. The maximum joist span allowed is 24" o/c.

C. Width of joists should be considered with workloads.

D. Expansion joints are mandatory with method EJ171, page 178 of the TCNA handbook. **DO NOT** cut the TI-ProBoard to achieve this.

3.03 Installation on existing decks

A. Prepare for tiling the deck by removing old deck boards.

B. Check the joists and support posts to make sure that they are suitable to receive the new floor.

C. Slope the joists to the required angle to allow for water run off.

01. One method is to sister a length of 2x6 lumber to each existing joist. Place TI-ProBoard on the 'new' joists

3.04 Installation Instructions

A. TI-ProBoard should be placed perpendicular to the joists. The first board can be placed at either edge. It is advisable that the first board be straight and square. Use a square and chalk line for the accuracy of the first board. The grooved edge should face the outside of the deck to allow the next board to be pressed into the tongue.

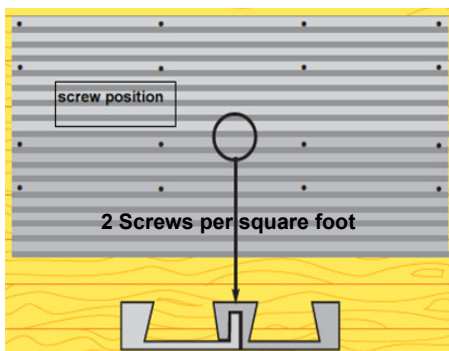
B. Screw TI-ProBoard to the joist using 1-1/2" screw with 1/2" Pancake Head with corrosion protection. (For screw position on each board please see Figure 1 on page three.)

C. When joining 2 boards, butt each board equally over a joist and screw each board. Do not maintain a continual seam. All seams should be staggered and no board should be shorter than the span of three joists.

D. For cutting TI-ProBoard, a wet saw is highly recommended, although cutting the board can be achieved by using a circular saw with a dust mask.

E. All joints, when the deck is completed, should be checked to see that the tongue and grooved boards are all firmly in place and flush.

Figure 1. Screw Pattern For TI-ProBoard
(The black dots show the screw position of the 2 boards clipped together)



3.05 End support

A. Do not leave an end of TI-ProBoard unsupported. Wherever this occurs, blocking must be added to the joists to support the ends of the TI-ProBoard.

3.06 Preparation For Tiling On TI-ProBoard

A. Fill the channels between the ribs with a medium bed mortar. Screed the mortar level with the top of the ribs and let dry before moving to the next stage. Normally after 24 hours the next step can start. Follow the mortar manufacturer's recommendations.

B. When it comes to waterproofing please follow the membrane manufacturer's recommendations.

Figure 2. Waterproof System Over Living Space.

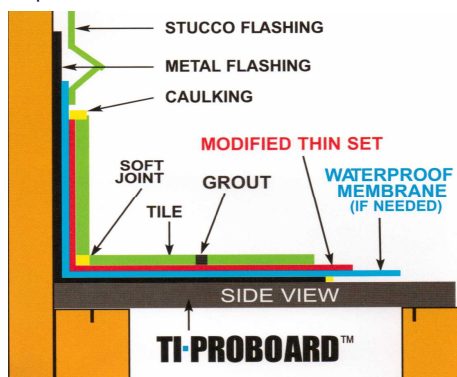
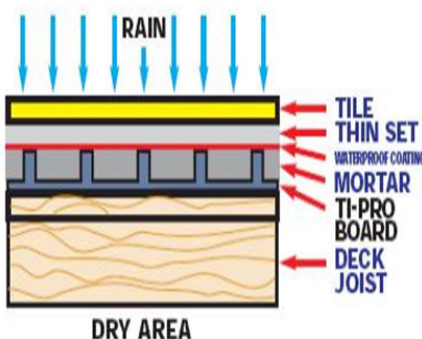


Figure 3. Waterproof System on Decks for Dry Storage Underneath.



3.07 Protective/Decorative Edging.

A. Protective and decorative edging should be used around the perimeter of the deck/balcony, etc. This can be done after the TI-ProBoard has been screwed down and mortar bed applied.

01. Press TI-Edging into the thin set with the long side pressed against the vertical board. Leave a 1/4" gap between the tile and TI-Edging.

02. Caulk the 1/4" gap prior to grouting with a caulk/grout that matches the grout color.

Figure 4. Protective/Decorative Edging Used on a Stair Tread.



3.08 Setting the Tile.

A. Latex modified thin set, meeting or exceeding ANSI standard 118.4 is required for tiling outdoors. Tile should have a minimum of 98% coverage of thin set; apply to both the back of the tile and deck bed to ensure 98% coverage is achieved.

B. Notch trowel sizes

01. For 12" and 13" tiles use a 1/4"x3/8"x1/4" notched trowel.

02. For 16" and 18" tile use a 3/8"x3/8"x3/8" notched trowel.

C. For exterior decks, use a fully vitrified or porcelain tile, this may vary in certain regions depending on freeze/thaw variances. The coefficient of friction for the finished surface should be rated at 0.6 or greater. (new rule .43)

D. Only grouts, either sanded or epoxy, with an exterior rating can be used.

3.09 Installation of tile around guard rail wood posts.

A. If tiling around a railing post that is prone to expansion and contraction, allow a 1/2" gap around the post or each side if a square post is used.

B. Cover the bottom of the post with decorative molding.

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IS PROUDLY



3255 Symmes Road
Hamilton, OH 45015
(513)870-9200

www.finpan.com